

Brainstorm to *Standardize*

Brainstorming Ways to *Standardize the Format*

Add to these examples:

Providing a designated space for students to

- Respond in writing to a prompt or to show their work.
- “Redo”/revise/edit their written work.
- Lock in their final answer or a key understanding (for example, a “stamp it” section).
- Take discussion notes.
- Draw a model or illustration (for example, of an atom, to solve a word problem, and so on).

- _____
- _____
- _____

Using consistent headers for different sections of a lesson or levels of work complexity

- “Mild/medium/spicy” problems
- “Before/during/after reading”

- _____
- _____
- _____

Teaching students consistent expectations for taking notes from a text or making notes in the margins while reading independently

- _____
- _____
- _____

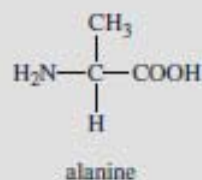
CASE STUDY: *Standardize the Format*

LESSON MATERIALS EXCERPT 4: VICKI HERNANDEZ, GRADE 8 BIOLOGY *Annotation Checklist*

- Underline only key lines (about 1 per paragraph)
- Make a margin note for each key line
- Jot a one sentence summary at the end of each page
- Underline and define key words/terms in the question stem

Proteins

By Regina Bailey



Proteins are formed from amino acids. This image shows the amino acid alanine. The variable group in alanine is CH₃.

Proteins are very important molecules in cells. By weight, proteins are collectively the largest component of the dry weight of cells. They can be used for a variety of functions from cellular support to cellular locomotion, or movement. While proteins have many diverse functions, all are typically constructed from one set of 20 amino acids.

Structure of Proteins

One or more chains of amino acids twisted into a 3D shape forms a protein. The unique shape of the protein determines its function. For instance, structural proteins such as collagen and keratin are fibrous and stringy. Globular proteins like hemoglobin, on the other hand, are folded and compact.

Protein Synthesis

Proteins are synthesized (made) in the body through a process called translation. Translation occurs in the cytoplasm and involves the translation of genetic codes that are assembled during DNA transcription into proteins. Cell structures called ribosomes help translate these genetic codes into amino acid chains that undergo several modifications before becoming fully functioning proteins.

Questions:

1. Which line in the text suggests a reason that proteins have so many diverse roles?
 - a. According to their weight, proteins are the largest component of cells.
 - b. The specific shape of the protein determines its role.
 - c. Proteins are very important molecules in cells.
 - d. Proteins are synthesized in the body through translation.
2. Read this sentence from the second paragraph.

Globular proteins like **hemoglobin**, on the other hand, are folded and compact.

How does this sentence help develop the ideas in the paragraph?

- a. It explains how the shape of globular proteins is similar to the shape of other proteins.
- b. It shows the similarities between the shape of hemoglobin and the shape of collagen and keratin.

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- c. It shows how the shape of hemoglobin is 3D in structure.
 - d. It contrasts the shape of globular proteins with the shape of structural proteins.
3. What is the author's main purpose in this article?
- a. to examine the roles of specific proteins
 - b. to explain the process of translation and how proteins are involved
 - c. to explain key information about proteins
 - d. to explain how the structure of proteins influences their role
4. Describe the structure of structural proteins.

5. Describe the structure of globular proteins.

6. Explain where translation occurs.

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Evaluation:

Ideas I could steal from Vicki:
